

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 04-024922

(43)Date of publication of application : 28.01.1992

(51)Int.Cl.

H01L 21/316
// H01L 27/04

(21)Application number : 02-125207

(71)Applicant : MITSUBISHI MATERIALS CORP

(22)Date of filing : 15.05.1990

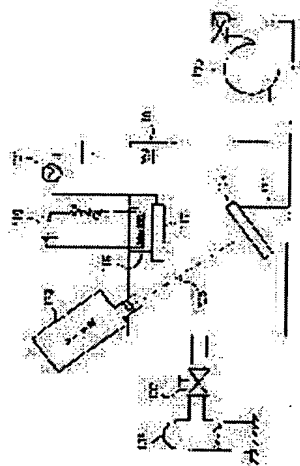
(72)Inventor : SUGIHARA TADASHI
TAKESHITA TAKUO

(54) FORMING METHOD FOR HIGH PERMITTIVITY THIN FILM AND FORMING APPARATUS THEREOF

(57)Abstract:

PURPOSE: To grown a highly dielectric material of a Perovskite structure on a substrate by moving the material and flux of active oxygen toward the substrate in which a silicon layer applied by a negative potential is exposed, and covering the substrate therewith.

CONSTITUTION: A target 113 and a silicon wafer 117 are secured. Then, the wafer 117 is heated to a predetermined temperature lower than its transition temperature by a heater 119. A negative voltage supply source 121 applies an AC negative voltage to the wafer 117. Mixture gas is introduced to a sputtering chamber 103 while controlling a flowrate control valve 107, and pressure is regulated by an exhaust device 109. When a laser light 125 is emitted to the target 113, flux of led titanate-zirconate oxide is generated from the target 113, oxygen in the mixture gas is further activated to become active oxygen. The active oxygen is accelerated by an electric field formed by an applied negative voltage to move toward the wafer 117 to cover the wafer 17.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office